



National Park Service  
Teaching <sup>with</sup> **MUSEUM** Collections  
Management Program  
<http://www.cr.nps.gov/museum>

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The National Park Service [NPS] *Teaching with Museum Collections* provides lesson plans for teachers to use NPS museum collections in student-centered educational activities. The collections tell the story of America; its peoples, cultures, varied habitats, significant events, and ideas that continue to inspire the world. *Teaching with Museum Collections [TMC]* emphasizes the links between the 'real things,' the collections, and the sites where those collections were found, collected, or used. NPS collections include cultural objects, natural history specimens, archival documents and photographs. Lesson plans are linked to national education standards.

**A. Title: The Movable School**

☐ **Developers:**

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☐ **Grade Level:** 6 – 8<sup>th</sup> grade

☐ **Length of Lesson:** 45 minutes

**B. Overview of this Collection-Based Lesson Plan**

☐ **Park Name:** Tuskegee Institute National Historic Site.

**Description:** The Movable School program was designed by George W. Carver to help the rural farmers in Alabama to become self sufficient. This lesson plan will help learner understand how the Movable School program was a vehicle for agricultural education. Carver designed a carryall known as the "Jessup Wagon." This wagon provided lecturers with the ability to demonstrate farming techniques, as well as distribute a variety of seeds, fertilizer samples, a revolving churn, cream separator, milk tester and other useful appliances.

☐ **Essential question** What was the significance of the Movable School program?

**C. Museum Collections Used in this Lesson Plan**

Collections on exhibit in the Legends of Tuskegee: American Visionaries from the Tuskegee Institute National Historic Site at [www.cr.nps.gov/museum](http://www.cr.nps.gov/museum)

Jessup Wagon

Tuskegee Institute National Historic Site TUIN 1417

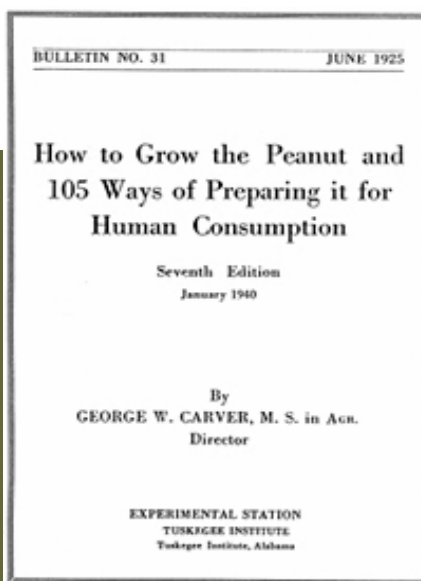
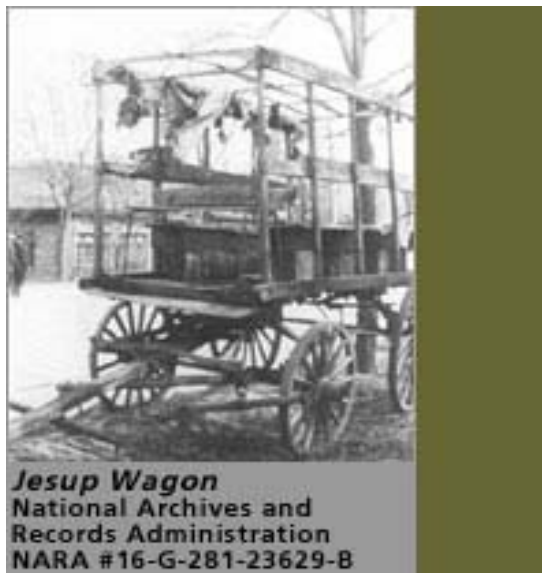
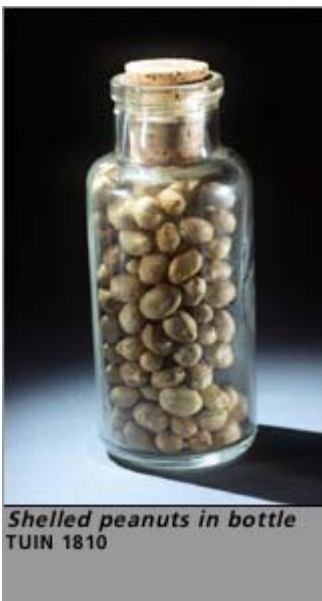


Model 60 chassis manufactured by the White Motor Company, 1930. Serial #60-170765. Six cylinder engine with manual drive. The truck body was added by Tuskegee Institute. Present body was built by A. C. Miller & Co., Atlanta, GA. in 1938. Chassis has dual wheels on rear. Exterior is sheet metal; the interior is plywood, oak frame, waterproof canvas top and imitation leather seats. The wagon has two rear doors.

H 257, W 256, L 602 cm



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<http://www.cr.nps.gov/museum/exhibits/tuskegee/lgimage/gwc32.htm>

#### D. National Educational Standards

Chapter 3 United States History Standards 7-12

Era 6: The Development of the Industrial United States (1870 – 1900)



Standard 1: How the rise of corporations, heavy industry and mechanized arming transformed the American people

<http://cnets.iste.org/currstands>

## E. Student Learning Objectives

After these lessons, students will be able to

1. Identify three uses of the movable school program.
2. Become acquainted with various meals from the peanut.
3. Present a 15-minute oral presentation on the movable school program.
4. Conduct a plant survey and innate awareness of why George W. Carver used certain plants to help the farmers produce a good crop.
5. Develop an understanding of the impact of cultivating a health garden.

## F. Background and Historical Context

### Establishment of Tuskegee Agricultural Experiment Station

When Booker T. Washington and George Washington Carver came to Tuskegee one of the first things they did was to go out into the communities to introduce themselves and to observe living conditions of poor sharecroppers. Both men understood the urgency of having an alternative education system for farmers who didn't attend Tuskegee Normal School.

Washington and Carver were committed to the philosophy of "learning by doing" that they shared with the 4-H Club of America. The club originated at the turn of the twentieth century because of the vital need to improve life in rural areas. Programs included learning skills in homemaking, growing farm crops, planting a garden, testing soil, raising animals, and producing exhibits. There was a close connection between school and home in the early 4-H program. Many adults were receptive to Carver's teachings because of their experiences in the 4-H Club.

In 1896, Booker Washington successfully convinced the Alabama State Legislature to create the Tuskegee Agriculture Experiment Station for "*educating and training colored students in scientific agriculture*". Dr. Carver was named as its director. A stagecoach was provided for travel throughout the country on weekends to assist farm families.

### The Jessup Wagon, the 'school on wheels'

In May 1906, the Jessup Agricultural Wagon was introduced to provide service to the local farmers. Carver designed a carryall known as the "Jessup Wagon". This wagon provided lecturers with the ability to demonstrate farming techniques. It also allowed for the distribution of seeds and fertilizer samples. It had a revolving churn, cream separator, milk tester and other useful appliances.

The wagon was named in honor of Morris K. Jessup, a New York banker who provided money for constructing and outfitting the wagon. The first operator was George R. Bridgeforth, a faculty member in the Agriculture Department at Tuskegee. He took the wagon directly to the farmers in the field. Bridgeforth also recognized that farm wives needed training as well, if significant home improvements were to be made. The wagon gained in popularity. Booker Washington asked Thomas Campbell in cooperation with Dr. Seaman Knapp to begin the "Farmers Cooperative Demonstration" in Macon County. It would function together with the Movable School of Agriculture. The purpose of this project was to teach farmers better methods of farming and



improve their home life. Campbell was later appointed as the first black United States demonstration agent for the US Department of Agriculture.

Booker T. Washington traveled to the rural areas around Tuskegee on a mule-drawn cart. He visited farms and churches in order to gather information, and encourage students to attend the Normal school. Washington encouraged Tuskegee Normal School faculty to do same. He believed that if they saw and met local farmers and their families, they could find out first-hand what their needs were, and how these could be met. The information gained on these visits proved valuable in planning courses to benefit both the student, their families and communities.

Demand for services grew. The Jessup Wagon was motorized. There were many programs that started through the movable school concept that were transferred to the Agricultural Extension Service. Today, the Cooperative Extension System, in the tradition of the Movable School, still provides much practical instruction and demonstration for both rural as well as urban families through Tuskegee, Auburn and Alabama A& M Universities.

#### **G. Materials Used in this Lesson Plan**

Peanuts, peanut recipes, ([www.cr.nps.gov/museum](http://www.cr.nps.gov/museum)), research on Movable School, bean seeds, turnip seeds, peanut seeds, and sweet potato seeds.

Containers for the plants, soil, fertilizer, water, measuring tape, charts, dictionary, laminate machine, copy machine and books from the resource list.

Bulletins from the website.

<http://www.cr.nps.gov/museum/exhibits/tuskegee/gwcwagon.htm>. These images are in the National Archives and Records Administration collections.

Pencils, paper, flip charts, photographs from the *Legends of Tuskegee* website: Jessup Wagon,

#### **H. Vocabulary**

Agriculture  
Extension services  
Rural  
Urban  
Self sufficient  
Share cropper  
Carryall  
Cream separator  
Churn  
Cooperative

Add to the word and concept list with students as lesson unfolds. Post list on large chart in the classroom. Write definitions with student input as words come into use during the lesson.

#### **I. Teacher Tips**

Teachers will need to encourage and incorporate the following into the lesson:



- ❑ Download and laminate, if possible, images of the Jessup Wagon in the Tuskegee Institute NHS museum collections, as well as other images of the Wagon at [www.cr.nps.gov/museum](http://www.cr.nps.gov/museum).
- ❑ Make copies of the 'How to Read an Object' chart.

## J. Lesson Implementation Procedures

### *Activity 1: Introduction and Warm Up:*

Tell the learner they will be using objects from a National Park Service web site as a source of learning and information. Explain that they will learn to look very closely at an object or set of objects to deduce historical, cultural and social information and to draw inferences about life then and now.

Show the class the image of the Jessup Wagon. Divide the class up into small groups. Have the groups complete the "How to Read an Object" activity [download from web site at [www.cr.nps.gov/museum](http://www.cr.nps.gov/museum)]. Reconvene as a class and draw responses to the questions from each group. This activity introduces the learner to the idea of learning through museum collections.

### **Activity 2**

In the late 1800's cotton was known as King Cotton in which it was planted year after year which depleted the soil. George W. Carver's research with peanut and sweet potato allowed farmers to use a crop rotation system allow farmers to put nutrients back into the soil.

Today, if your garden lacked nutrients what would you do?

Divide the students into two groups. Give the students 15 minutes for a group discussion among themselves. Next, each group would discuss how to cultivate a health garden?

### **Activity 3**

Have students develop a classroom exhibit on improving the soil and cultivating a health garden. Brainstorm with the students as to what will be exhibited. Then give each group an assignment, including photographic material, writing label copy, doing a talk on the topic, designing the exhibit, and what will be exhibited.

Students should prepare a slide illustrated talk and write a news release about the Movable School and the exhibit.

### **Activity 4**

Have each student design and hand-build or draw related an object that George W. Carver might have used to take out into the rural community. Work with students put a display inside their local community library, 4-H Club meeting, and in the class room exhibit.

### **Activity 5**

Have students grow peanut, bean, sweet potato and turnip plants. Put fertilizer on the bean, and turnip plants. Do not fertilize the sweet potato and peanut plant. Water all four plants, measure their growth, and the percentage of sunlight. Students are conducting a survey on plants to understand how and why George W. Carver selected certain plants for farmers to grow. Have the students track and comment on the growth of the plants using the table below.



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Week 1	Week 2	Week 3	Week 4	Week 5

### **Activity 6**

Have students prepare a meal using some of Dr. Carver's recipes. This activity can be done at home, and have students bring in finish meal and share with students. Several of Carver's soup recipes follow:

### **SOUPS**

#### **Peanut Soup**

Cook peanuts until soft; remove skins, mash or grind until very fine; let milk come to a boil; add the peanuts; cook 20 minutes. Rub flour into a smooth paste with milk; add butter to the peanuts and milk; stir in flour; season with salt and pepper to taste; serve hot.

#### **Peanut Soup Number Four**

Boil 10 minutes in a half a cup of water; half a cup of chopped celery, a tablespoon of chopped onion, the same amount of red and green peppers mixed; add a cup of peanut butter and 3 cups of rich milk to which has been added 1 tablespoon of flour; add 1 teaspoon of sugar; boil two minutes and serve.

#### **Sorrel soup**

We hope that every person who likes something new, novel, delicious nourishing, and appetizing will try this soup. Thoroughly clean and wash about 2 quarts of the leaves, boil slowly until tender (preferably in a porcelain or granite ware vessel); rub through a sieve, add your favorite seasoning and three cups of soup stock to it; thicken with one tablespoon of butter and one of



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flour rubbed together, stir this into a teacupful of boiling hot milk. Add to the soup stirring it vigorously to prevent curdling. Let boil up and serve at once.

Peanut butter candy

2 cups sugar

2 tablespoons peanut butter

½ cup milk

Blend (all ingredients) together, boils for 5 minutes, remove from the fire and beat steadily until cool. (Break into pieces and store covered).

### ***Wrap Up Activity and Discussion***

### **K. Evaluation/Assessment for Measurable Results**

1. Teachers tell students that group participation is expected of them and a scoring tool will be provided so they will understand expectations before they begin.
2. Individual and group assignments allocated during the classroom exhibit project
2. Writing assignments, including the news release
3. Hand-build or drawing of an object that George W. Carver might have used to take out into the rural community.

### **L. Extension and Enrichment Activities**

Join a local 4-H Club. Plant vegetables at home, outdoors or in a pot  
Take part in a local garden club and other similar activities.

### **M. Resources**

Mayberry, B.D, "*A Century of Agriculture In The 1890 Land-Grant Institutions And Tuskegee University – 1890-1990.*" Vantage Press, Inc.1991.

Mayberry, B.D, "*The Role of Tuskegee University I the Origin, Growth and Development of the Negro Cooperative Extension System 1881 – 1990.*" Brown Printing Company 1989.

Adair, Gene; "*George W. Carver, Botanist.*" Chelsea House Publishers 1989.

<http://www.cr.nps.gov/museum/exhibits/tuskegee/lgimage/gwc32.htm>

NOTE: Other National Park Service Carver and Washington sites, including:

<http://cnets.iste.org/currstands/>

<http://www.gwcarver.org>

<http://www.nps.gov/gwca>

US Department of Agriculture.

Food and Nutrition

[http://www.usda.gov/wps/portal/!ut/p/\\_s.7\\_0\\_A/7\\_0\\_10B?navtype=SU&navid=FOOD\\_NUTRITION](http://www.usda.gov/wps/portal/!ut/p/_s.7_0_A/7_0_10B?navtype=SU&navid=FOOD_NUTRITION)



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Agriculture.

[http://www.usda.gov/wps/portal/!ut/p/s.7\\_0\\_A/7\\_0\\_1OB?navtype=SU&navid=AGRICULTURE](http://www.usda.gov/wps/portal/!ut/p/s.7_0_A/7_0_1OB?navtype=SU&navid=AGRICULTURE)

<http://www.fourhcouncil.edu/>

Local agricultural extension web sites

[www.inventors.about.com/library](http://www.inventors.about.com/library)

## **N. Site Visit**

Pre-visit: Before the visit, have students visit the [www.cr.nps.gov/museum](http://www.cr.nps.gov/museum) and visit the *Legends of Tuskegee* web exhibit. Request brochures and other written/visual materials about the site. Have each student come up with 2-3 questions to guide the visit.

Site visit: At the site, have students select at least two objects to analyze. Provide "How to Read an Object" sheets. It also includes an object sketch sheet.

Post-visit: See extension activity list for ideas for post-visit student presentation ideas and revisit the web site.